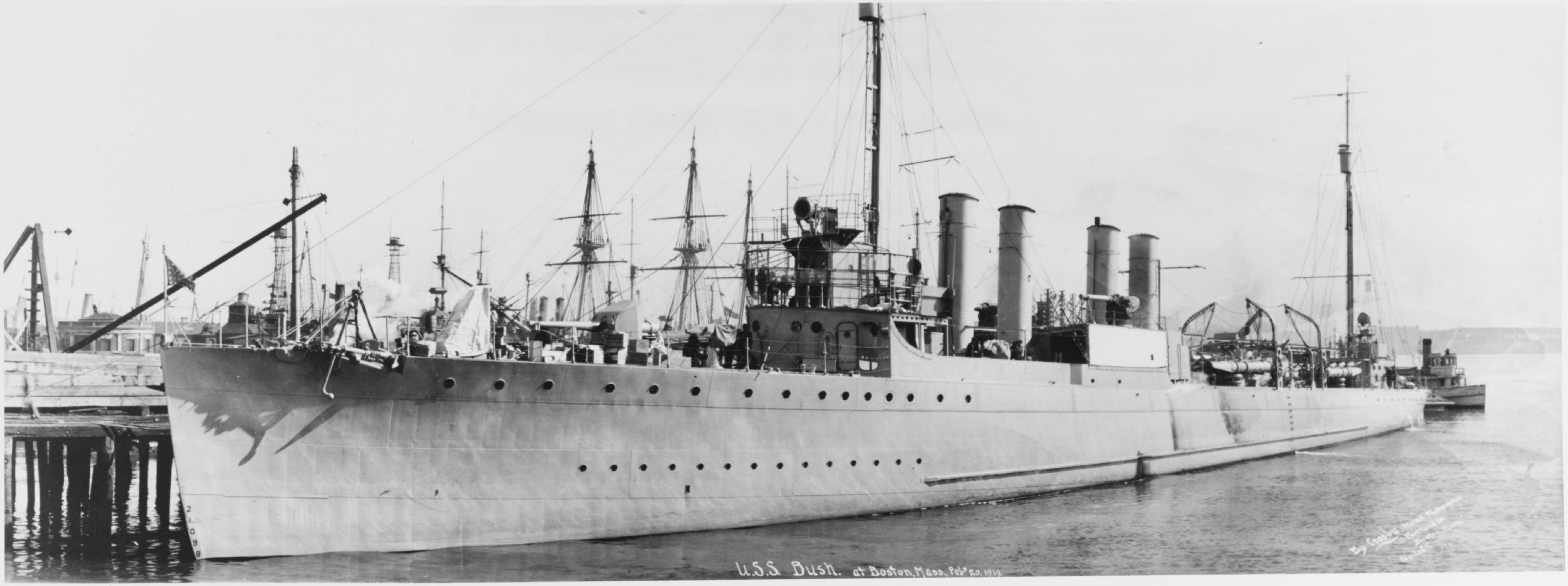
U.S.S. Bush. at Boston, Mass., Feby 20, 1919.

By Crosby, Naval Photographer
11 Portland St.
Boston, Mass.
No 1085.



U.S.S. Bush. at Boston, Mass., Feb. 20, 1919.

U.S.S. [redacted]
TORPEDO BOAT DESTROYER NO. [redacted]
BOOKLET OF GENERAL PLANS

NUMBER AND ORDER OF PLANS.	
1	GENERAL INFORMATION AND DATA
2	OUTBOARD PROFILE
3	INBOARD PROFILE
4	BRIDGE DECK
5	MAIN DECK
6	PLATFORM DECK
7	HOLD
8	CROSS SECTIONS

CORRECTED TO SUIT SHIP

PLACE	DATE	CONSTRUCTION OFFICER
QUINCY, MASS	AUG 1 5 1920	[illegible]

OFFICE OF
SUPERINTENDING CONSTRUCTOR
FOR U. S. NAVY
QUINCY, MASS. Aug. 21, 1920
CONSTRUCTOR'S NO. 42
FORWARDED WITH LETTER NO. 21-2-D.
R. W. Ferrell.
ACTG. SUPERINTENDING CONSTRUCTOR

Lithotracing from #161 -

U. S. TORPEDO BOAT DESTROYERS NOS. 161-170
GENERAL INFORMATION.

LENGTH BETWEEN PERPENDICULARS (F.P. & STA. 40)	310'-0"
PROJECTION FORWARD OF F.P.	3'-0"
PROJECTION AFT OF STA. 40	1'-4½
LENGTH OVER ALL	314'-4½
LENGTH ON D.W.L.	310'-11½
LENGTH OF STRAIGHT KEEL (FR. 7 TO FR. 160	268'-0"
BREADTH, MOLDED, EXTREME	30'-11½
BREADTH, EXTREME OVER GUARDS	31'-8¼"
BREADTH, MOLDED, AT TRIAL W.L.	30'-8¼"
RATIO, LENGTH TO BEAM	10.08
DRAFT, DESIGNERS W.L. TO BOTTOM OF KEEL	9'-1¾
DISPLACEMENT TO DESIGNERS W.L. IN TONS (ESTIMATED 273.2 T. FUEL OIL AND 25.52 T. RESERVE FEED WATER)	1185
DEPTH M'L'D. MAIN DECK AT SIDE, FR. 88 (1'-0" FORD OF M.P.)	20'-8⅛"
DISPLACEMENT TONS PER INCH AT 9'-1¾" DRAFT	15.50
AREA, MIDSHIP SECTION TO D.W.L. 9'-1¾" IN SQ. FT.	212
AREA, D.W.L. PLANE	6510
AREA WETTED SURFACE TO 9'-1¾" W.L.	10370
BREADTH AT D.W.L. (MOLDED & 1½ THICKNESS OF PL)	30'-9"

C.G. OF D.W.L. PLANE AFT OF FR. 88 (WHICH IS 12" FORD M.P.	6'-0½"
C.B. AFT OF FR. 88	1'-6¾"
TRANSVERSE METACENTRE ABOVE C.G. (FROM COND III INC. EXPER. "PALMER")	1.93 FT.
LONGITUDINAL " " " " " " " "	727.43 FT.
COEFFICIENT OF FINENESS, BLOCK	.469
" " " MID-SECTION	.748
" " " D.W.L.	.686
" " " CYLINDRICAL	.627
RUDDER AXIS FORD OF STA. 40	6'-4½"
NO. OF FRAMES - SPACING 21"	177
NO. OF W.T. COMPTS.	45
SHAFT STRUTS FORD OF A.P.	21'-1"
SHAFTS INCLINE DOWN AND AFT P & S	3°-33'-14"
SHAFTS DIVERGE FROM ℄ P & S	2°-42'-33"
℄ OF SHAFT FROM ℄ OF SHIP AT FR. 99	2'-7"
" " " " " " " " " 138	5'-11"
" " " ABOVE MOLDED BASE AT FR. 99	10'-4¼"
" " " " " " 138	6'-2"
PROPELLERS, TWO 3 BLADED — DIA	9'-0"
" PITCH	9'-11"
" EXPANDED AREA IN SQ. FT.	44.9
" PROJECTED " " "	37.8
" ℄ FORD OF A.P.	17'-0"

TURBINES
MAIN PROPELLING MACHINERY

THERE ARE TWO PROPELLING SHAFTS AND PROPELLERS EACH DRIVEN THROUGH A REDUCTION GEAR BY ONE H.P., ONE I.P AND ONE L.P. HIGH SPEED CURTIS TURBINES. THE TURBINES DRIVING THE STARBOARD PROPELLER ARE ARRANGED IN THE AFTER ENGINE ROOM, THE SHAFT TURNING OUTBOARD

THE H.P. AND I.P. TURBINES ARE ARRANGED IN TANDEM AND CONNECTED DIRECTLY TO THE OUTBOARD PINION OF EACH REDUCTION GEAR AND THE L.P. AND ASTERN TURBINES, ARRANGED IN ONE CASING, ARE CONNECTED DIRECTLY TO THE INBOARD PINIONS BOTH INBOARD AND OUTBOARD PINIONS, IN ONE CASING DRIVING ONE MAIN GEAR WHICH IS COUPLED DIRECTLY TO ITS RESPECTIVE LINE SHAFT.

R. P. M.

H.P. AND I.P. TURBINES	3200
L.P.	3000
PROPELLERS	452
S.H.P. TOTAL	27000

CONDENSERS

TWO CONDENSERS CURVED TUBE TYPE.

TOTAL COOLING SURFACE ALL CONDENSERS —— 1519 SQ. FT.

BOILERS

FOUR YARROW EXPRESS TYPE LBS. PRESS (WORKING)	265
TOTAL HEATING SURFACE IN SQ. FT.	27540
NO. OF OIL BURNERS (12 PER BOILER)	48
DIA. OF MAIN STEAM PIPE	10½"
FOUR FUNNELS, HEIGHT ABOVE KEEL (AVERAGE)	47'-9"

BATTERY

4-4" GUNS MARK IX. MOUNT MARK XII

NO. 1 - MAIN DK FR. 28 ℄ TRAIN 90° FORD — 65° AFT — P & S
NO. 4 - MAIN DK. FR 163 ℄ " 90° AFT. — 55° FORD — P & S
NO. 3 TOP OF GALLEY DECK HOUSE FR. 76 STBD " 87½° FORD — 85° AFT — S
NO. 2 TOP OF GALLEY DECK HOUSE FR. 76 PORT " 87½° FORD — 85° AFT — P

2-3" ANTI AIRCRAFT GUNS MARK XIV MOUNT MARK XIV

NO. 1 AUTOMATIC ANTI AIRCRAFT GUN MAIN DK. FR. 36 ℄
NO. 2 AUTOMATIC ANTI AIRCRAFT GUN MAIN DK. FR 61 PORT

4-6.8 M. X 21" TRIPLE TORPEDO TUBES DECK

NO. 1 MAIN DK. FR. 98, PORT, TRAIN 60° FORD 60° AFT — P
NO. 2 " " " 106 ST'BD " 60° " 60° " — S
NO. 3 " " " 127 PORT " 60° " 60° " — P
NO. 4 " " " 138 ST'BD " 60° " 60° " — S

COMPLEMENT

1 COMMANDING OFFICER —— PETTY OFFICERS } 112
7 WARDROOM OFFICERS —— CREW }
12 CHIEF PETTY OFFICERS —— TOTAL ON BOARD —— 132

LIST OF BOATS

1-24' MOTOR SAILING LAUNCH	NO. OF MEN	19
1-24' WHALE BOAT	" " "	23
1-21' MOTOR DORY	" " "	10
1-10' PUNT	"	

CAPACITIES OF WATER TANKS

FRESH WATER TANK	B-103	2879 GALS.	TONS F.W. 10.69
" "	B-104	2879 "	" " 10.69
RESERVE FEED "	C-101	6872 "	25.52
COFFERDAM	A-116	4497 "	" " 16.70

CAPACITIES OF PEAK & TRIMMING TANKS.

COMPT.	A-101	1513 GALS	5.62 TONS F.W.	5.78 TONS S.W.
"	A-102	3433 "	12.75 " "	13.11 " "
"	D-109	3638 "	13.51 " "	13.90 " "

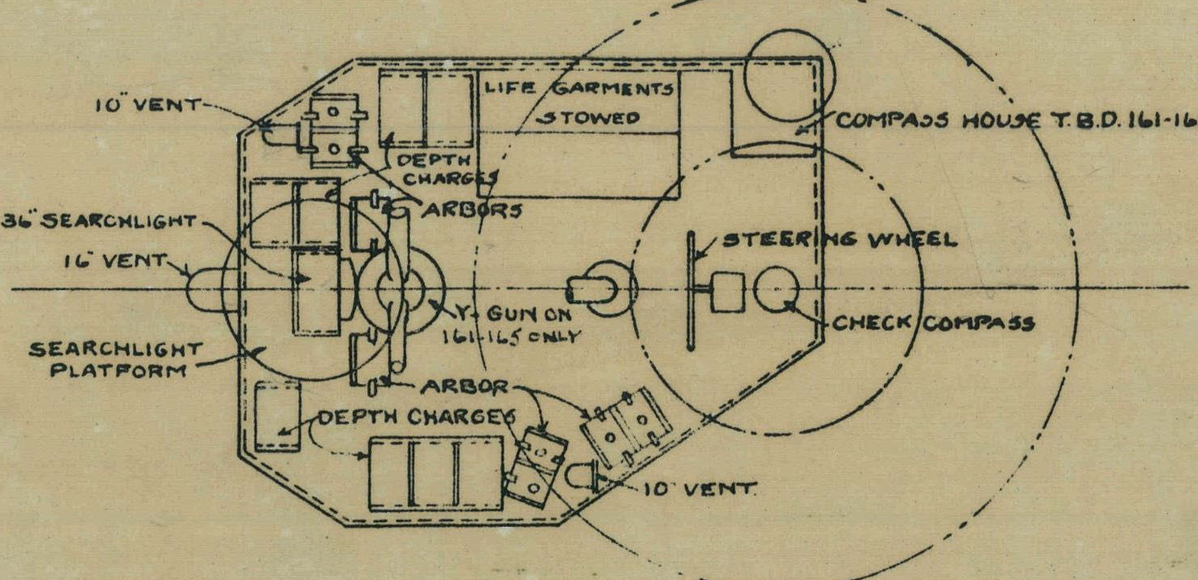
CAPACITIES OF FUEL OIL TANKS

COMPT.	A-105 = 7390 GALS	988 CU. FT.	COMP'T	A-114 = 6130 GALS.	819.5 CU. FT.
"	A-106 = 7390 "	988.0 " "	"	A-115 = 8510 "	1137.7 " "
"	A-107 = 5150 "	684.2 " "	"	D-101 = 9880 "	1327.3 "
"	A-108 = 5150 "	689.2 " "	"	D-102 = 9580 "	1280.8 " "
"	A-113 = 6130 "	819.5 " "	"	D-103 = 10090 "	1348.9 " "
"	A-104 = 6390 "	854.3 " "	TOTAL CAPACITY	81840 "	10942.4 " "

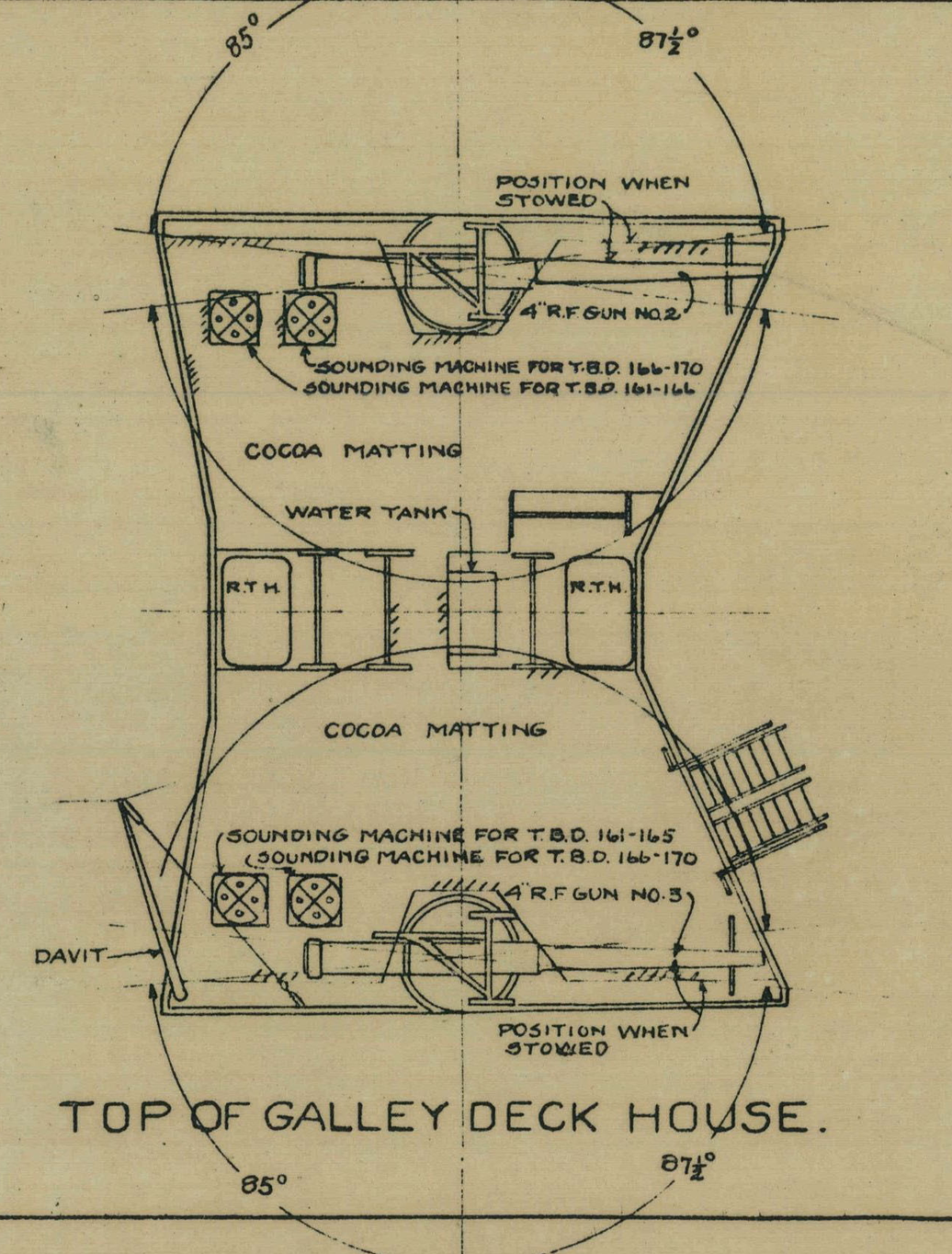
HEIGHTS ABOVE DESIGNERS W.L.

D.W.L. IS 9'-1¼ ABOVE MOLDED BASE LINE AND 9'-1¾" ABOVE BOTTOM OF KEEL.
MASTS:- TO TOP OF FOREMAST = 95'-10½": TO BOTTOM OF MAIN TRUCK LIGHT 95'-10½"
SIGNAL YARD, FOREMAST —— 88'-3"
SEARCHLIGHT PLATFORM FORD —— 29'-3"
" " AFT —— 23'-8"
BRIDGE ON FR. 48 AT SIDE = 29'-3" —— AT CENTRELINE —— 29'-8 11/16"
TOP OF GALLEY DECK HOUSE AT FR. 76 —— 20'-8"
TOP OF MAIN DK PLATING AT STERN —— 8'-3¾"
TOP OF AFTER DK. HOUSE AT FR. 150 —— 16'-8"
SMOKE STACKS —— 38'-7¼"
CEN. OF GUN NO. 2 AT FR. 76 P = 24'-2½" —— CEN. OF GUN NO. 3 AT FR. 76 S = 24'-2½"
" " " NO. 4 " " 163 ℄ = 12'-10¾" — CEN. OF 1 PDR " NO. 1 " " 36 ℄ = 19'-5½"
" " " NO. 1 " " 28 ℄ = 19'-9¾" — " " 1 PDR " NO. 2 " " 61 P = 18'-1½"
CEN. OF TORP. TUBES NO 1 AT FR. 98 P = 14'-9" — CEN. OF TORP. TUBES NO. 3 AT FR 127 P = 13'-11½"
" " " NO. 2 " " 106 S = 14'-4" — " " " " NO. 4 " " 138 S = 13'-4½"
" " SEARCHLIGHT AT FR 49 = 33'-2" — " " SEARCHLIGHT AT FR. 153 = 26'-6"

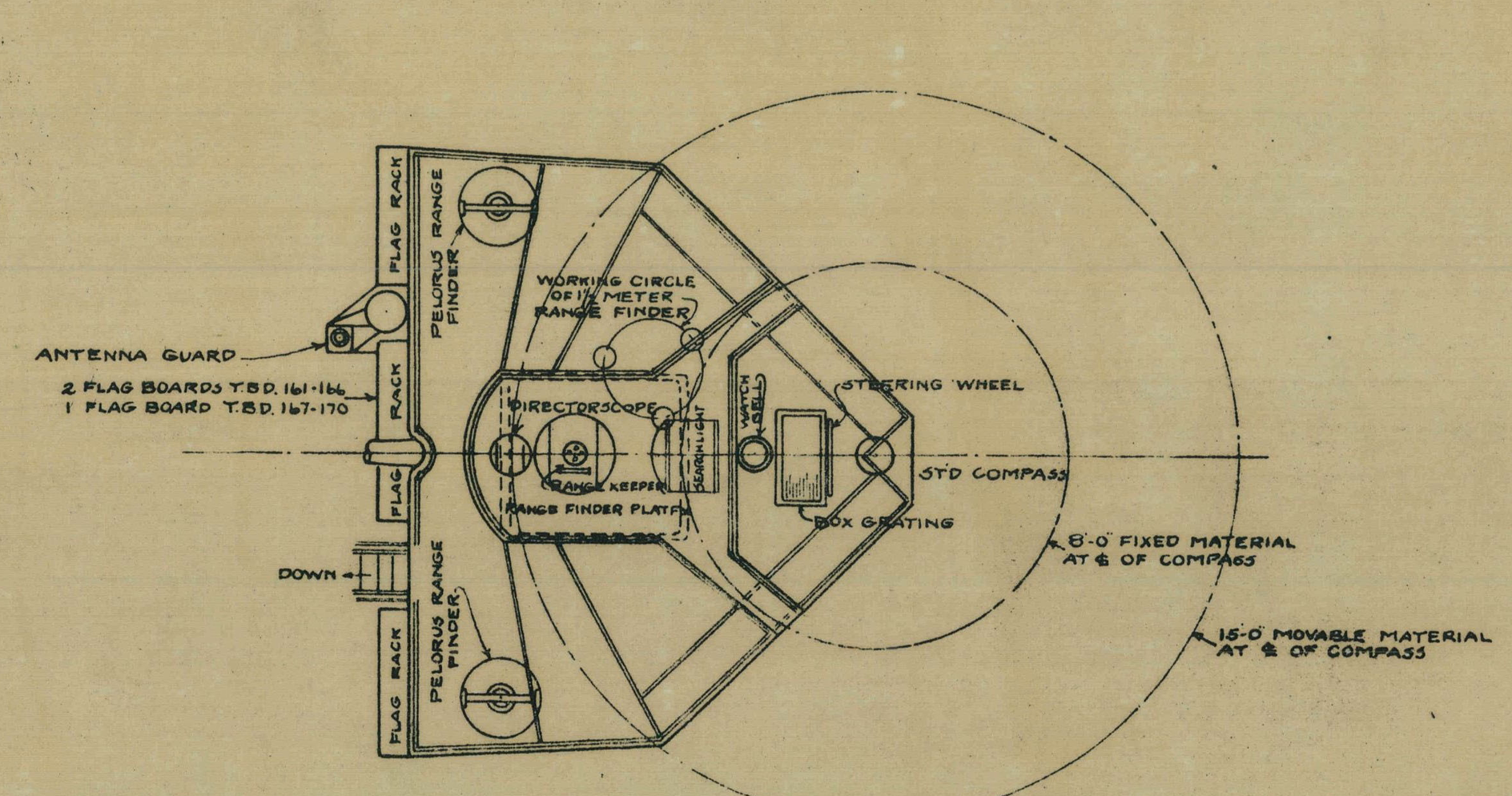
Lithotracing from #161



TOP OF AFTER DECK HOUSE.

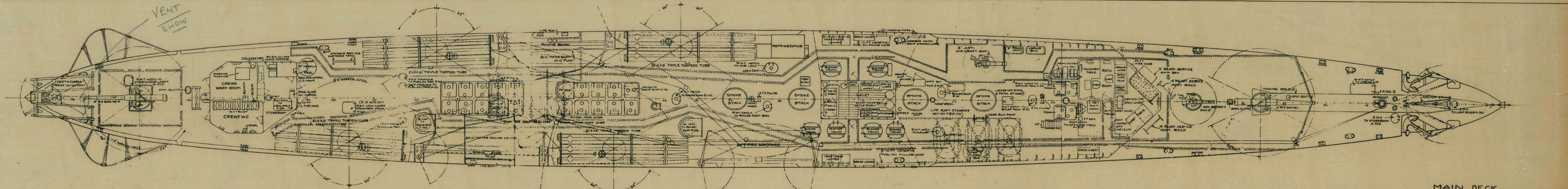


TOP OF GALLEY DECK HOUSE.

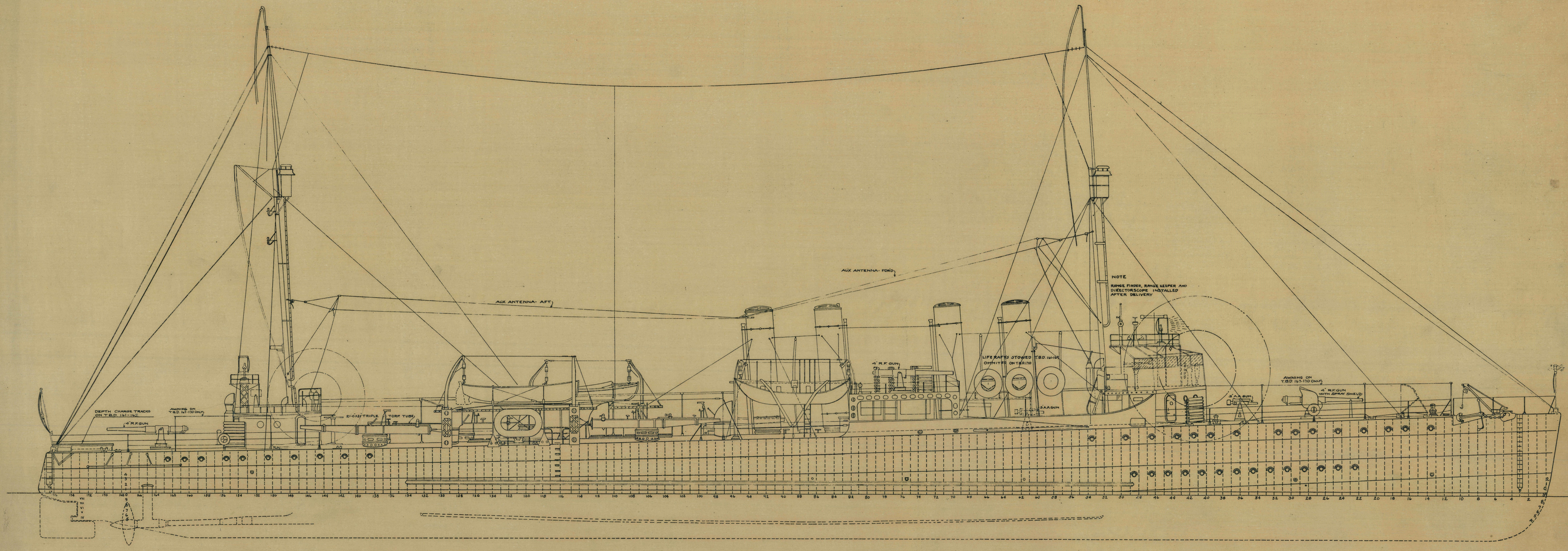


BRIDGE.

BRIDGE AND DECK HOUSES.
SCALE ⅛" = 1'-0"
Lithotracing from #161



MAIN DECK.
SCALE ⅛" = 1'-0"
C+R No. 91018 = H
Lithotracing from #161


AUX ANTENNA- AFT
AUX ANTENNA- FORD
NOTE
RANGE FINDER, RANGE KEEPER AND DIRECTORSCOPE INSTALLED AFTER DELIVERY
DEPTH CHARGE TRACKS ON T.B.D. 161-165
AWNING ON T.B.D. 167-170 ONLY
4" R.F. GUN
21-0"x21" TRIPLE TORP. TUBE
4" R.F. GUN
LIFE RAFTS STOWED T.B.D. 161-169 OMMITED ON T.B.D. 170
3" A.A. GUN
3" A.A. GUN
AWNING ON T.B.D. 167-170 ONLY
4" R.F. GUN WITH SPRAY SHIELD

OUTBOARD PROFILE
SCALE 1/8"=1'-0"

Lithotracing from # 161

INBOARD PROFILE
SCALE 1/8"=1'-0"

Lithotracing from 161

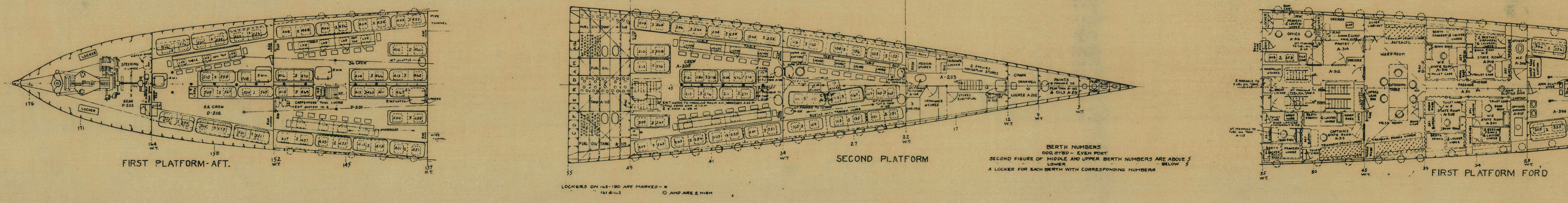
Bd C+R No. 91018-B.

Bd C&R # 91018 B U.S.S. [illegible]

Booklet No. 6

BU. C.&R. No. 91018

3°382

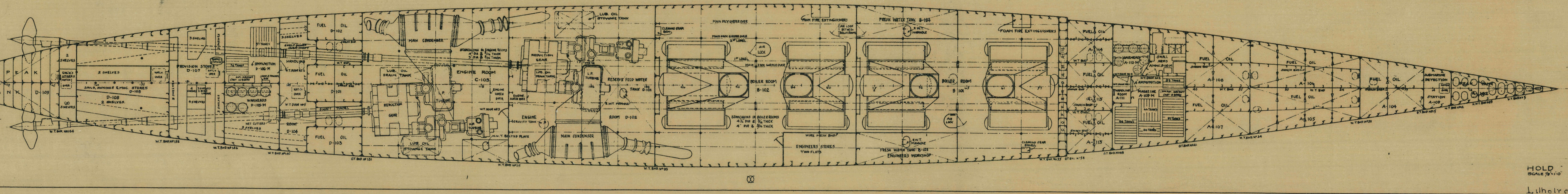


BERTH NUMBERS
ODD, ST'BD – EVEN PORT.
SECOND FIGURE OF MIDDLE AND UPPER BERTH NUMBERS ARE ABOVE 5
" " " LOWER " " BELOW 5
A LOCKER FOR EACH BERTH WITH CORRESPONDING NUMBERS

LOCKERS ON 163-180 ARE MARKED – ⌗
" " 161 & 162 ⊙ AND ARE 2 HIGH

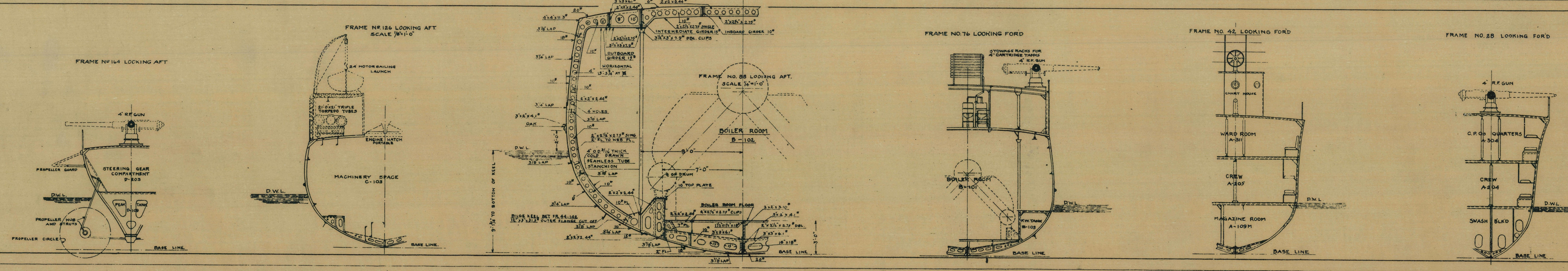
PLATFORMS
SCALE 1/8" = 1'-0"

Lithotracing from No. 161



HOLD
SCALE 1/8" = 1'-0"

Lithotracing from No. 161



CROSS SECTIONS

Lithotracing from No. 161

Bu. C+R No 91018-C

3°382

Books 121 Nos 2

Bu. C+R No 91018-C

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